

PCT WORLD INTELLE

WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6: (11) International Publication Number: WO 98/31626 A1 B65H 75/08 23 July 1998 (23.07.98) (43) International Publication Date: (81) Designated States: AU, BR, CA, CZ, HU, JP, KR, MX, PL, PCT/US98/01191 (21) International Application Number: RO, RU, SI, SK, UA, US, YU, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, 20 January 1998 (20.01.98) (22) International Filing Date: (30) Priority Data: US Published 60/036,200 21 January 1997 (21.01.97) With international search report. (71) Applicant (for all designated States except US): THE DEXTER CORPORATION [US/US]; One Elm Street, Windsor Locks, CT 06096-2334 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): FERREIRA, Rui, B. [US/US]; 28 Julia Court, Broad Brook, CT 06016 (US). RIEGER, Joseph, A. [US/US]; 3 Dominique Lane, Simsbury, CT 06070 (US). (74) Agents: ALIX, James, E. et al.; Alix, Yale & Ristas, 750 Main Street, Hartford, CT 06103-2721 (US).

- (54) Title: WET-LAID NONWOVEN WEB FROM UNPULPED NATURAL FIBERS AND COMPOSITE CONTAINING SAME
- (57) Abstract

Wet-laid nonwoven webs having mechanical reinforcement properties are provided by employing unpulped vegetable fiber bundles as the predominant fiber component. The unpulped fiber bundles have a modulus of elasticity of about $2-5 \times 10^6$ psi and a chopped fiber length of about 25 mm. The fibers are cordage fibers including sisal, abaca, henequen, kenaf and jute. Composites of the unpulped fiber webs with cellulosic and spunbonded sheets find application as thermoformed vehicle interior trim products.